Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

AFSC/NMML: Marine Mammal Aerial Surveys in the Bering, Chukchi and Beaufort Seas . 1979-2014

1.2. Summary description of the data:

The Bureau of Ocean Energy Management (BOEM), formerly the Minerals Management Service (MMS), and its precursor, the Bureau of Land Management, have funded aerial surveys in the Beaufort, Chukchi and Bering seas since 1979. In 2008, through an Interagency Agreement between MMS and the Alaska Fisheries Science Center (AFSC, National Marine Fisheries Service, National Oceanic and Atmospheric Administration), the National Marine Mammal Laboratory (NMML, a division of AFSC) assumed co-management responsibilities for these surveys. Throughout the history of the surveys, they have been referred to as the Bowhead Whale Aerial Survey Project (BWASP) and the Chukchi Offshore Monitoring in Drilling Area (COMIDA) marine mammal aerial surveys, both of which are described in more detail below. In 2011, a new Interagency Agreement between BOEM and NMML was established to authorize NMML to continue the BWASP and COMIDA studies under the auspices of a single study, Aerial Surveys of Arctic Marine Mammals (ASAMM). Consistent survey protocol has been in effect on surveys conducted since 1982. BEAUFORT SEA Aerial surveys in the western Beaufort Sea (south of 72 degrees N, 140-157 degrees W) have been conducted each year since 1979. MMS personnel and contractors conducted the surveys from 1979-2007. From 2008-2014, the surveys were conducted by NMML. The primary goal of the project, also known as BWASP, was to document bowhead whales (Balaena mysticetus) during their fall migration through the western Beaufort Sea, although data were also collected for all other marine mammals that were sighted during the surveys. The surveys were typically conducted during the open water (i.e., ice-free) months of September and October, when offshore drilling and geophysical exploration are feasible and when the fall subsistence hunt for bowhead whales takes place near Kaktovik, Cross Island (village of Nuiqsut), and Barrow, Alaska. Additional surveys were conducted in the Beaufort Sea during spring and summer 1979-1986, and during summer 2011-2014. The emphasis of fall surveys in the Beaufort Sea was to conduct broad-scale surveys to assess shifts in the migration pathway of bowhead whales, and to coordinate effort and

manage data necessary to support seasonal offshore drilling and seismic exploration regulations. The selection of survey blocks to be flown on a given day was nonrandom, based primarily on criteria such as observed and predicted weather conditions over the study area and offshore oil industry activities. Otherwise, the project attempted to distribute effort evenly east-to-west across the entire study area. Aerial coverage favored inshore survey blocks because bowheads were rarely sighted north of these blocks during surveys conducted from 1979-1986. EASTERN CHUKCHI SEA Aerial surveys in the eastern Chukchi Sea (68-73 degrees N, 157-169 degrees W) were conducted by MMS contractors from 1982-1991. From 2008-2014, the surveys were conducted by NMML using similar methodology to the surveys conducted in previous years. In 2014, surveys expanded south to 67 degrees N. The goal of the surveys, also known as COMIDA, was to investigate the distribution and relative abundance of marine mammals in the Chukchi Sea Planning Area (CSPA) during the open water (i.e., ice-free) months of June to October, when various species are undertaking seasonal migrations through the area. However, from 1979-1984, surveys were also conducted during spring. NORTHERN BERING AND SOUTHERN CHUKCHI SEAS Aerial surveys in the northern Bering and southern Chukchi seas (63-68 degrees N, east of the International Date Line) were conducted by MMS contractors from 1979-1985. The goal of these surveys was to investigate the distribution, abundance, migration timing, habitat relationships and behavior of endangered whales during the spring migration. Surveys were conducted from April-July. This database contains aerial survey data from the surveys described above.

1.3. Is this a one-time data collection, or an ongoing series of measurements?
Ongoing series of measurements

1.4. Actual or planned temporal coverage of the data:
1979-04 to Present

1.5. Actual or planned geographic coverage of the data:
W: -174.0134, E: -125.2533, N: 76.146, S: 57.725
Bering, Chukchi and Beaufort seas

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
other

1.7. Data collection method(s):
(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)
Instrument: NA
Platform: Aircraft
Physical Collection / Fishing Gear: NA

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
Metadata Coordinators MC

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:
AFSC.metadata@noaa.gov

2.5. Phone number:

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:
Megan Ferguson

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?
No

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):
0

5. Data Lineage and Quality
NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible
(describe or provide URL of description):
Process Steps:

- NA

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):
In 2010, a quality assurance/quality control (QA/QC) review of the database was undertaken to improve use of the database for analyses, standardize attribute values, minimize inconsistencies, and/or correct errors. For more information about this review see AerialMaster_HistoricalDataReview.doc which can be found by downloading the historical BWASP and COMIDA database (1979 to 2013) found here: http://www.afsc.noaa.gov/nmml/software/bwasp-comida.php

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?
Yes

6.1.1. If metadata are non-existent or non-compliant, please explain:

6.2. Name of organization or facility providing metadata hosting:
NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:
https://inport.nmfs.noaa.gov/inport/item/17338

6.4. Process for producing and maintaining metadata
(describe or provide URL of description):
Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: https://inport.nmfs.noaa.gov/inport/downloads/data-documentation-procedural-directive.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides

information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

Yes

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

National Centers for Environmental Information - Silver Spring, Maryland

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

http://www.afsc.noaa.gov/nmml/cetacean/bwasp/index.php

7.3. Data access methods or services offered:

Data is available at NCEI: http://data.nodc.noaa.gov/cgi-bin/iso?id=gov.noaa.nodc:0039614

7.4. Approximate delay between data collection and dissemination:

Unnknown

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

NCEI-MD

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):

National Marine Mammal Laboratory - Seattle, WA

8.3. Approximate delay between data collection and submission to an archive facility:
Unknown

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

IT Security and Contingency Plan for the system establishes procedures and applies to the functions, operations, and resources necessary to recover and restore data as hosted in the Western Regional Support Center in Seattle, Washington, following a disruption.

9. Additional Line Office or Staff Office Questions
Line and Staff Offices may extend this template by inserting additional questions in this section.